AMENDED CLAIMS

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1. A method for removal of ions of heavy metals from an aqueous solution by precipitation of solid ferrites of said heavy metals and by reducing the concentration of the ions of heavy metals in the aqueous solution to levels below 0.1 ppm, wherein said method is a single step precipitation process that is carried out in the presence of a magnetic field defined by magnetic strength of at least 300 Gauss, wherein said precipitation process occurs after a chemically active seed is added to the aqueous solution.

2. A method as defined in claim 1, in which said precipitation process comprises:

a. providing a source of iron ions, said source containing at least Fe^{+2} ions

b. providing a source of OH^- ions

c. adding said Fe^{+2} ions to the aqueous solution

d. adding said OH^- ions to the said aqueous solution

e. precipitation of said solid ferrites from the aqueous solution.

3. A method as defined in claim 2, comprising adjusting the pH value of said aqueous solution to a value, which is sufficient to initiate formation of ferrites of said heavy metals.

4. A method as defined in claim 2, in which said source of iron ions contains a mixture of Fe^{+2} and Fe^{+3} ions.

5. A method as defined in claim 2, in which said source of iron ions comprises a mixture of bi and tri valent iron salts.

6. A method as defined in claim 5, in which said source of iron ions comprises a mixture of $Fe(SO_4)$ and $Fe_2(SO_4)_3$.

7. A method as defined in claim 3, in which the pH value of the aqueous solution is kept between 8 and 10.

8. A method as defined in claim 2, in which said source of OH^- ions

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prises a base.

9. A method as defined in claim 8, in which said base is NaOH.

10. A method as defined in claim 1, in which said seed comprises magnetite.

11. A method as defined in claim 1, said method comprising separation of precipitated solid ferrites and recirculation of at least a portion thereof until their efficiency in promoting further ferrite precipitation is diminished.

12. A method as defined in claim 2, in which weight ratio between the total amount of iron ions in the aqueous solution and the amount of ions of heavy metals in the precipitated solid ferrites is less than 8.

13. A method as defined in claim 11, in which separation of precipitated solid ferrites from the aqueous solution comprises conventional filtration procedure.

14. A method as defined in claim 11, in which separation of precipitated solid ferrites from the aqueous solution comprises conventional settling procedure.

STATEMENT UNDER PCT ARTICLE 19

Claims 1-14 as filed with the above application have been amended and are replaced by the attached fresh set of claims 1-14. The claims were amended to better define the most essential features of the invention. Among those features one can mention:

a) carrying out the precipitation process as a single step process
b) carrying out the precipitation process in the presence of a magnetic field having magnetic strength of at least 300 Gauss
c) carrying out the precipitation process after adding previously prepared chemically active magnetite seed.

The introduced amendments only emphasize the above essential features. They do not go beyond the disclosure in the above referred-to application as filed, they do not introduce any new matter and the amendment has no impact on the description and the drawings.
Below are summarized the differences between the claims as amended and the claims as filed.
Pages 20,21 with amended claims 1-14 replace pages 20,21 with the claims 1-14 as filed.
The difference between the claimed invention and the cited references lies in the fact, that none of the cited references discloses a method for the removal of contaminant metal ions from waste water, which would be a single step process and which would employ simultaneous use of a magnetic field and magnetite seed and produce ferrites as the precipitates.
Furthermore, none of the cited reference mentions possibility to reduce the concentration of heavy metal ions in aqueous solution to levels below 0.1 ppm and the possibility to keep the total amount of added iron ions (including iron ions in the seed and iron ions dissolved in the solution) 8 time less than amount of iron ions in the precipitated solid ferrites.

The Applicant respectfully requests reconsideration of the characterization of the cited references.